Technical Data

HIculture™ Transport Swab For Environmental Monitoring MS5259

Recommended for recovery of environmental monitoring

Directions

1. Identify surface, area or site to be sampled. A sterile square sampling template is recommended when sampling flat surfaces.
2. Unscrew the long screw cap tube containing sponge w/ saline.
3. Insert the flock tip swab into the sponge to moisten the tip.
4. Place the template at the sampling surface & swab in bidirection, in order to achieve maximum uptake of surface material
5. When sampling is completed, insert the swab to second tube with Buffered Peptone Water and break at the neck by applying pressure diagonally. Make sure the cap is properly tightened.
6. Transport samples to the laboratory within 4 hour in a cool condition. Sample can be refrigerated at 2-8°C for upto 24 hours before analysis.
7. For analysis, vortex the tube containing Buffered peptone water with swab to release sample material and make uniform suspension.
8. Carry out processing by surface spread method or pour plate method. If the concentration of organism in the sample is expected to be high, then prepare serial dilution.

Principle And Interpretation

Environmental monitoring describes the processes and activities that need to take place to characterise and monitor the quality of the environment, which can help to determine the effectiveness of cleaning and biocontamination. Environmental sampling program will not only allow a pharmaceutical laboratory to know whether it is within the recommended action levels , but will also provide valuable information for determining sources of potential contamination and counteracting them (1).

Buffered Peptone Water is recommended for preparation of stable test strain suspension employed for validating the microbiological testing procedures of non-sterile products. The standardized stable suspensions are used so that the suitability of this test to detect microorganism in presence of product can be established. Non-fatty products insoluble in water and water-soluble products are diluted/dissolved using this solution (1,2,3,4,5).

Peptone (meat or casein) serves as nutrient source and maintains the cell viability. Phosphates in the medium act as good buffering agents. Sodium chloride maintains the osmotic balance and cell integrity. Polysorbates reduce surface tension and also inactivate phenolic compound, if present in the test sample.

Quality Control

Appearance

Small tube containing Buffered Peptone Water, long tube with moist sponge and nylon flocked Swab

Colour

Clear colourless solution

Quantity of Medium

2 ml of medium in tubes

Reaction

7.00

Sterility test

Passes release criteria

Cultural response

Viability of following was established for a period of 24 hours. Organisms grew luxuriantly when recovered on Tryptone Soya Agar (M290)and incubates at 35-37°C for 18-24 hours.

Organism	Recovery
Escherichia coli ATCC 8739	luxuriant
Escherichia coli NCTC 9002	luxuriant
Escherichia coli ATCC 25922	luxuriant
Salmonella Typhimurium ATCC 14028	luxuriant
Staphylococcus aureus ATCC 25923	luxuriant
Staphylococcus aureus ATCC 6538	luxuriant
Pseudomonas aeruginosa ATCC 9027	luxuriant
Pseudomonas aeruginosa ATCC 27853	luxuriant
Salmonella Typhimurium ATCC 14028	luxuriant
Salmonella Abony NCTC 6017	luxuriant
Micrococcus luteus ATCC 9341	luxuriant
Candida albicans ATCC 10231	luxuriant
Candida albicans ATCC 2091	luxuriant

Storage and Shelf Life

On receipt ,all the above products to be stored between 5-25°C

Reference

1.The United States Pharmacopoeia, 2016, The United States Pharmacopoeial Convention. Rockville, MD.
2.British Pharmacopoeia, 2016, The Stationery office British Pharmacopoeia
3.European Pharmacopoeia, 2014, European Dept. for the quality of Medicines.
4.Japanese Pharmacopoeia, 2008.
5.Indian Pharmacopoeia, 2010, Govt. of India, the controller of Publication, Delhi, India.

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